



KENTUCKY DERBY
— MUSEUM —

Horse Head Sculpture

*A multi-disciplinary lesson for
Kindergarten – 6th Grade*

LESSON PART ONE

Making Your Sculpting Dough

Core Academic Standards:

(Math) KY.K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

KY.1.MD.4 Investigate questions involving categorical data.

KY.3.MD.2 Measure and solve problems involving mass and liquid volume.

KY.6.NS.1 Interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions.

(Science) 2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.

5-PS1-2. Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.

5-PS1-4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

Sculpting Dough Mixture

Ingredients

1 cup all-purpose flour
1 cup water
½ cup salt
1 tablespoon of oil
2 tablespoons cream of tartar
(optional) food coloring

Directions

Cook all ingredients, except coloring, stirring constantly.

When well mixed, form a large ball, put on wax paper and knead to remove lumps.

Knead in color if desired, careful not to get food coloring on skin. Store in plastic bags.

Questions To Ask

If you only have ½ measuring cup, how many scoops of flour do you need for the recipe?

Predict what will happen when liquid is introduced to the mixture.

Which measurement has less?
Which has more?

What would our measurements be if we were going to double this recipe?

What would our measurements be if we only wanted to make ½ of this recipe?

Recipe courtesy of “Cooking in Cardinal Country: Great Recipes from Hiseville PTO”, a gift given to the Kentucky Derby Museum’s Outreach Educator from Hiseville Elementary, Barren County, KY.

LESSON PART TWO

Sculpting Your Horse Head

Core Academic Standards

VA:Cr2.1.3 Create personally satisfying artwork using a variety of artistic processes and materials.

VA:Cr1.1.4 Brainstorm multiple approaches to a creative art or design problem.

VA:Cr2.2.5 Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment.

VA:Cr2.1..6 Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design.

Vocabulary

- ◇ Balance – an even distribution of weight enabling someone or something to remain upright and steady.
- ◇ Proportion – the number, amount, or level of one thing when compared to another.
- ◇ Design – a plan or drawing produced to show the look and function of an object.
- ◇ Engineering – the branch of science and technology concerned with the design, building and use of engines, machines and structures.
- ◇ Texture – the feel, appearance, or consistency of a surface or substance.
- ◇ Muzzle – the projecting part of a face, including the nose and mouth, of an animal.

Design, Balance, Engineering

Before beginning her sculpture of Barbaro, artist Alexa King sketches out designs.



As she details in the documentary, she must design and engineer a rail system to support her sculpture.



Images of Alexa King sketches courtesy of Roy and Gretchen Jackson.

Create Your Own Horse Sculpture

(1) Roll a piece of the dough into a ball.



(2) Pinch to create neck.
Make sure base stays wide to support the sculpture.



(3) Pinch another piece of dough into a ball and roll into a cylinder.



Create Your Own Horse Sculpture

(4) Pinch one end of the cylinder to shape the muzzle of the horse.



(5) Attach the head to the neck. Gently smooth the dough down to join.



(6) Now create the horse's mane. Roll out a long rope of dough.



Create Your Own Horse Sculpture

(7) Pinch the top of the rope to create the hair of the mane.



(8) Attach the mane.
Gently smooth the dough down to join.



(9) Pinch up the ears and use a pencil to create the eyes and nostrils.



Extra Challenge

Try to sculpt a standing horse. Remember what you learned about balance and proportion.

Experiment with different tools to create texture-forks, spoons, toothpicks, etc.

Post your creations to social media so everyone can enjoy!

Use **#KyDerbyatHome**